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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference D02H-003		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CN02/00886	International filing date (day/month/year) 12. December 2002 (12.12.02)	Priority date (day/month/year) 25. December 2001 (25.12.01)	
International Patent Classification (IPC) or national classification and IPC IPC ⁷ H02M 7/48			
Applicant EMERSON NETWORK POWER CO.,LTD. & LING, Sandy			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 3 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and /or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty ,inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2)with regard to novelty ,inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application.</p>			
Date of submission of the demand 29. July 2003 (29.07.03)		Date of completion of this report 22. September 2003 (22.09.03)	
Name and mailing address of the IPEA/CN 6 Xitucheng Rd., Jimen Bridge, Haidian District, 100088 Beijing, China Facsimile No. 86-10-62019451		Authorized officer ZHANG, Jie Telephone No.86-10-62093193	
PCT/IPEA/409(cover sheet)(July 1998)			



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.
PCT/CN02/00886

I. Basis of the report

1. With regard to the elements of the international application:

☒ the international application as originally filed☐ the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the claims:

Nos _____, as originally filed

Nos _____, as amended (together with any statement) under Article 19

Nos _____, filed with the demand

Nos _____, filed with the letter of _____

☐ the drawings:

sheets/fig _____, as originally filed

sheets/fig _____, filed with the demand

sheets/fig _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. with regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages _____☐ the claims No. _____☐ the drawings, sheets/fig _____5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.
PCT/CN02/00886

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)

Claims 1-9 YES

Claims None NO

Inventive step (IS)

Claims 1-9 YES

Claims None NO

Industrial applicability (IA)

Claims 1-9 YES

Claims None NO

2. Citations and explanations (Rule 70.7)

The invention relates to a parallel inverter system including a plurality of inverters, in which the voltage regulating unit of each inverter includes a voltage regulator and a voltage linear combination circuit, and the voltage linear combination circuits output the output voltage of all of voltage regulators after linear combinations to the power amplifier unit.

The following documents are cited in the International Search Report.

D1: US-B1-6178103;

D2: US-A-5956244;

D3: CN-C-1023437;

D4: CN-C-1067188.

D1 disclosed an inverter circuit having a plurality of voltage source inverters coupled in parallel, in which a square wave generated by a synch signal source is coupled to each voltage source inverter.

D2 disclosed an apparatus including a master converter subsystem and at least one slave converter subsystem coupled in parallel wherein the master converter linked to the supply lines and the slave converter linked to the supply lines via intermediate lines, and the intermediate lines linked to a common mode choke for essentially eliminating common mode currents in the intermediate lines.

D3 disclosed an inverter system in which a plurality of inverters are operated in parallel. In this inverter system, a difference between an output current of a corresponding inverter and output currents of other inverters is detected, and by implementing the orthogonal coordinate transform processing to the result detected, correction signals relating to the output voltage of that inverter are provided.

D4 disclosed a power inverter having three or more PWM-type power inverting units driven in parallel, which includes a plurality of current balance controllers each of which is so constructed as to carry out a retardation correction for a PMW waveform outputted from the respective PWM-type power inverting units, so that each phase current between the respective PWM-type inverting units is balanced.

Therefore, none of aforementioned documents has disclosed the technical solutions of claims 1-9 of the present invention, and the technical solutions of claims 1-9 are not known and not obvious from the prior art documents and a person skilled in the art. Therefore, claims 1-9 have novelty under PCT Article 33(2) and inventive step under PCT Article 33(3). Obviously, claims 1-9 of the invention have industrial applicability under PCT Article 33(4).